

**CHEVRON - MID-CONTINENT EBIZ**  
760 Horizon Dr  
Grand Junction, CO 81506

SKR 598-25-BV-16

Interval 2  
Garfield County, Colorado

Sales Order: 900681547

## **Post Job Report**

For: Kieth Hejl  
Date: Thursday, August 22, 2013

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**HALLIBURTON**

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**1.0 WELL INFORMATION****1.1 Customer Information**

<b>Customer</b>	CHEVRON - MID-CONTINENT EBIZ
<b>Sales Order</b>	900681547
<b>Well Name</b>	SKR
<b>Rig Type</b>	None
<b>Interval</b>	2
<b>Well Number</b>	598-25-BV-16
<b>Job Date</b>	22-Aug-2013
<b>County</b>	Garfield
<b>State</b>	Colorado
<b>UWI/API</b>	0504515425
<b>Country</b>	United States of America
<b>H2S Present</b>	Unknown
<b>CO2 Present</b>	Unknown
<b>Customer Representative</b>	Kieth Hejl
<b>Halliburton Representative</b>	Swanson

## 1.2 Pipe Information

Equipment	Top MD ft	Bottom MD ft	OD in	ID in	Weight lb/ft
Surface Pipe	0.0	50.0	5.000	4.000	
Casing	0.0	4929.0	4.500	4.000	11.60

## 1.3 Perforation Intervals

Top MD ft	Bottom MD ft	Number of Shots	Perf Density spf	Perf Diameter in
4744.0	4879.0	27	0.2	0.340

**2.0 ACTUAL STAGE SUMMARY**

**2.1 Stage Summary**

Stage Number	Stage Time	Start Time	End Time	Time min	Pump Time min	Max Treat Pr psi	Max Slurry Rate bpm
1	22-Aug-13 08:30:51	08:29:41	22-Aug-13 08:30:51	1.18	1.03	5913	29.9
2	22-Aug-13 08:34:23	08:30:52	22-Aug-13 08:34:23	3.53	3.53	4613	63.8
3	22-Aug-13 09:03:38	08:34:24	22-Aug-13 09:03:38	29.25	29.25	4290	63.6
4	22-Aug-13 09:23:09	09:03:39	22-Aug-13 09:23:09	19.53	19.53	4697	63.6
5	22-Aug-13 09:36:35	09:23:10	22-Aug-13 09:36:35	13.42	12.88	6660	63.4
6	22-Aug-13 09:46:58	09:36:36	22-Aug-13 09:46:58	10.38	10.17	5792	17.7
7	22-Aug-13 09:47:23	09:46:59	22-Aug-13 09:47:23	0.42	0.05	2064	23.8

Stage Number	Stage Time	Max Wellhead Rate bpm	Max Prop Conc lb/gal	Max Slurry Prop Conc lb/gal	Avg Treating Pressure psi	Avg Clean Rate bpm	Avg Slurry Rate bpm
1	22-Aug-13 08:30:51	29.9	2.32	2.32	3202	26.9	26.9
2	22-Aug-13 08:34:23	63.8	2.41	2.41	4185	56.6	56.8
3	22-Aug-13 09:03:38	63.6	0.52	0.52	4200	62.2	63.6
4	22-Aug-13 09:23:09	63.6	0.71	0.72	4350	61.5	63.5

Stage Number	Stage Time	Max Wellhead Rate bpm	Max Prop Conc lb/gal	Max Slurry Prop Conc lb/gal	Avg Treating Pressure psi	Avg Clean Rate bpm	Avg Slurry Rate bpm
5	22-Aug-13 09:36:35	63.4	1.13	1.13	5129	53.7	55.8
6	22-Aug-13 09:46:58	17.7	0.00	0.00	5531	17.5	17.2
7	22-Aug-13 09:47:23	23.8	0.00	0.00	2059	0.0	10.6

Stage Number	Stage Time	Avg Wellhead Rate bpm	Avg Slurry Prop Conc lb/gal	Avg Hydraulic Horsepower hp	Clean Volume gal	Slurry Volume gal	Wellhead Volume gal
1	22-Aug-13 08:30:51	26.9	1.56	2110	1196	1217	1167
2	22-Aug-13 08:34:23	56.8	0.24	5829	8395	8434	8434
3	22-Aug-13 09:03:38	63.6	0.38	6545	76428	78129	78129
4	22-Aug-13 09:23:09	63.5	0.58	6771	50423	52111	52111
5	22-Aug-13 09:36:35	55.8	0.78	7011	29068	30202	30202
6	22-Aug-13 09:46:58	17.2	0.00	2329	7461	7338	7338
7	22-Aug-13 09:47:23	10.6	0.00	532	1	22	22
Total					172973	177452	177403

Stage Number	Stage Time	Prop Mass 100*lb
1	22-Aug-13 08:30:51	5.64

<b>Stage Number</b>	<b>Stage Time</b>	<b>Prop Mass 100*lb</b>
2	22-Aug-13 08:34:23	16.40
3	22-Aug-13 09:03:38	292.98
4	22-Aug-13 09:23:09	296.10
5	22-Aug-13 09:36:35	221.20
6	22-Aug-13 09:46:58	0.00
7	22-Aug-13 09:47:23	0.00
Total		832.32

### 3.0 PERFORMANCE HIGHLIGHTS

#### 3.1 Job Summary

Start Time	22-Aug-13 08:19:54	
End Time	22-Aug-13 09:47:23	

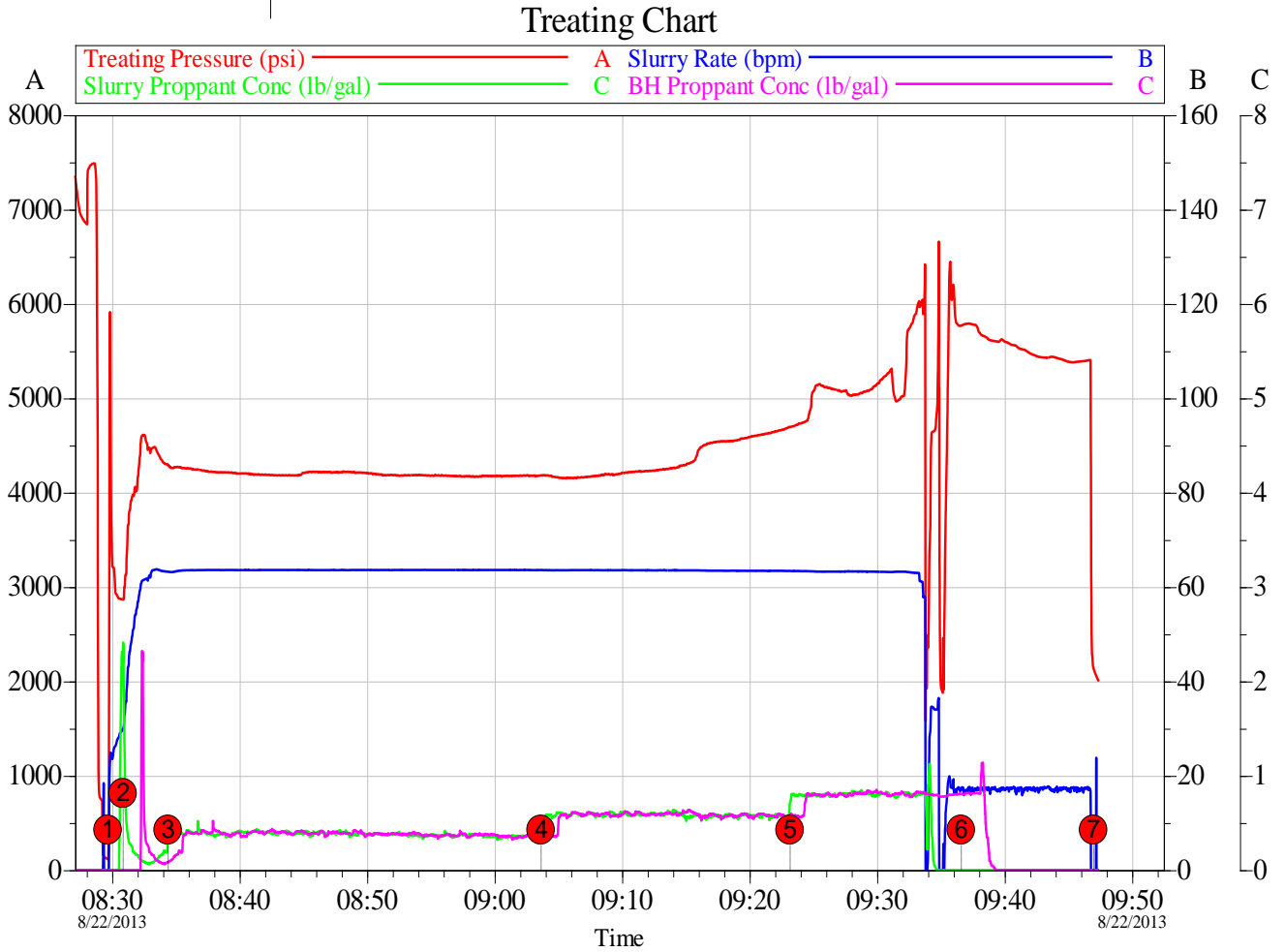
<b>SKR 598-25-BV-16 Stage 2</b>		
<b>8/22/2013</b>		
<b>Engineering Notes</b>		
Engineer on Location	Drew Mogck	
ISDP	2162	psi
Initial Pressure(Breakdown)	5913	psi
Max Pressure	6660	psi
Average Pressure	4446	psi
Max Rate	63.77	bpm
Average Rate	63.5	bpm
Proppant Design Volume	111,300	lbs
Proppant in Formation	106,000	lbs
FR-66 Used	33	gals
BE-7 Used	133	gals
SandWedge WF	113	gals
SCW-4212 Used	27	gals
Clean Volume	4118	bbls
Start Time	8:29 AM	HH:MM
End Time	9:40 AM	HH:MM
<b>Job Notes:</b>		
Pressure came up in 1 ppg sand and kicked pumps out. Got back into it at low rate, still fighting pressure, so flushed well from this point. 95% of designed proppant pumped.		

**3.2 Job Event Log**

Stage Number	Event Number	Time	Description	Comment	Treating Pressure psi	Slurry Rate bpm	Braden Pressure psi	Job Slurry Vol gal
	1	22-Aug-13 08:19:54	Start Job	Starting Job				
1		08:29:41	Stage 1	Pad	116	0.0	-19	0
		08:29:42	Start Averaging	Start Avg Trt 1	116	0.0	-19	0
	2	08:29:50	Break Formation	Break Formation=5913 psi, 23.02 bpm	5913	23.0	-17	66
2		08:30:52	Stage 2	Proppant Laden Fluid	2867	29.9	-17	1217
3		08:34:24	Stage 3	Proppant Laden Fluid	4290	63.3	-23	9651
4		09:03:39	Stage 4	Proppant Laden Fluid	4184	63.6	5	87780
5		09:23:10	Stage 5	Proppant Laden Fluid	4696	63.4	4	139891
	3	09:34:49	Other	Kicked out due to pressure. Will try to get back into it and flush well.	6313	36.5	2	169136
6		09:36:36	Stage 6	Flush	5771	17.3	2	170093
	4	09:46:55	ISIP	ISDP=2162 psi	2162	0.0	1	177430
7		09:46:59	Stage 7	Shut-In	2130	0.0	1	177430
		09:47:23	End Averaging	End Avg Trt 1	2001	0.0	1	177452
	5	09:47:26	End Job	Ending Job	2001	0.0	1	177452

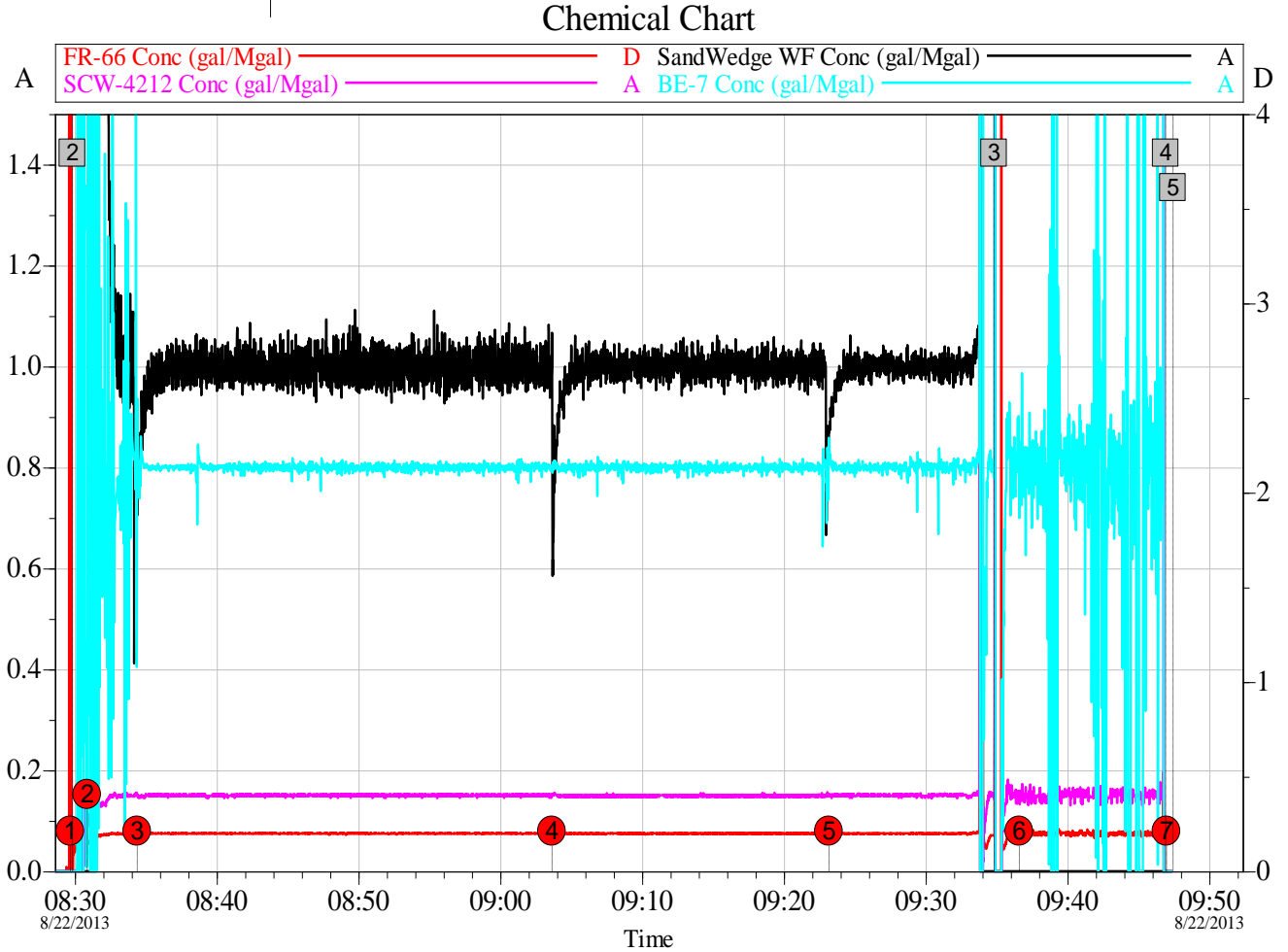
**4.0 ATTACHMENTS**

**4.1 Treating Chart**



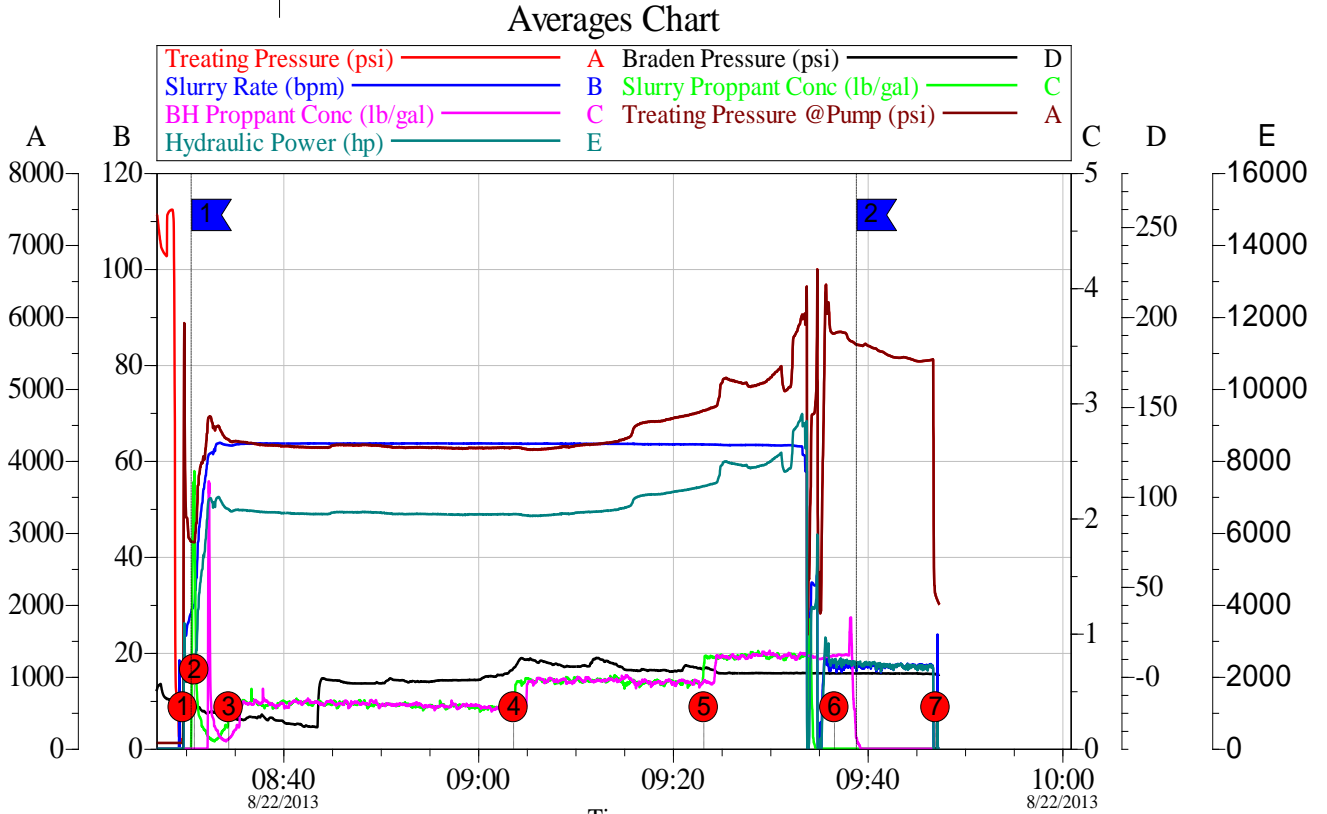
Customer: CHEVRON - MID-CONTINENT EBIZ	Job Date: 22-Aug-2013	Sales Order #: 900681547
Well Description: SKR 598-25-BV-16	UWI: 0504515425	

4.2 Chemical Chart



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Well Description: SKR 598-25-BV-16	UWI: 0504515425	

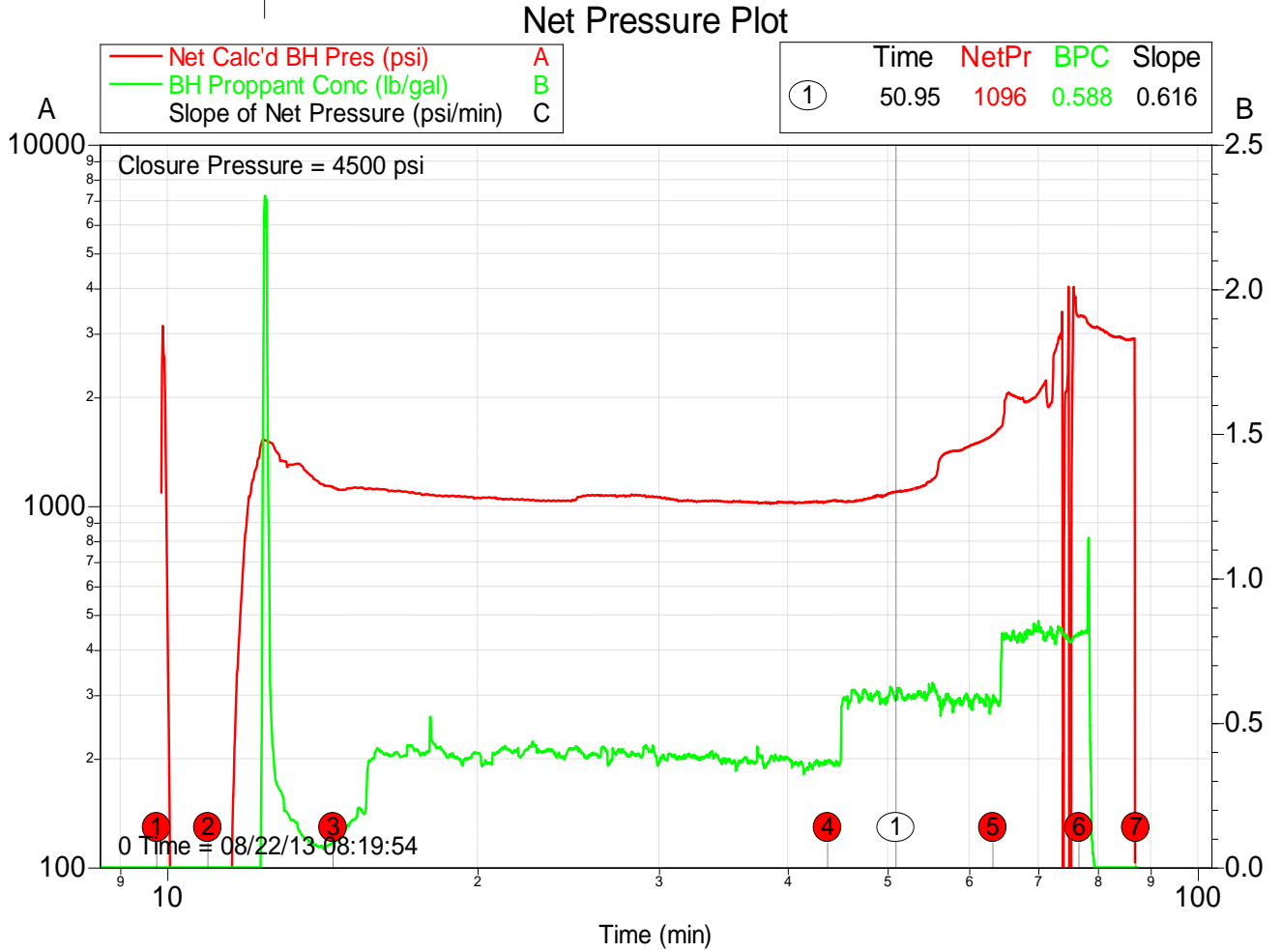
### 4.3 Averages Chart



Local Event Log							
Weighted Avg	TP	BH	SR	SPC	TPP	HP	
1	08:30:33	4446	-22839	63.51	0.501	4449	6574
2	09:38:51	5422	1.829	17.12	0.000	5422	2263

Customer: CHEVRON - MID-CONTINENT EBIZ	Job Date: 22-Aug-2013	Sales Order #: 900681547
Well Description: SKR 598-25-BV-16	UWI: 0504515425	

4.4 Net Pressure Plot



Customer: CHEVRON - MID-CONTINENT EBIZ	Job Date: 22-Aug-2013	Sales Order #: 900681547
Well Description: SKR 598-25-BV-16	UWI: 0504515425	